

Final Report
Facilitation of Both a Statewide Arboretum Program and a New Plant
Material Marketing System in Idaho
NAC/ISDA 2006-2
Idaho Nursery & Florist Research/Education Grant

Submitted by:
Stephen L. Love
University of Idaho
Aberdeen R & E Center
1693 S 2700 W
Aberdeen, ID 83210
208-397-4181
slove@uidaho.edu

This report summarizes fact-finding activities to study feasibility for the following:

- 1) Development of a statewide arboretum program in Idaho to provide support for community efforts to establish and maintain research/education/leisure arboretum plantings.
- 2) Creation of an organization/system to facilitate introduction of new native and/or adapted plant species into the nursery trade.

Appropriate contacts were established, background information collected, and on-site visits completed in order to accumulate information and allow assessment of feasibility for both objectives. Two documents follow, each prepared to address one of the stated objectives.

Report – Consultation with the Nebraska Statewide Arboretum Staff

Prepared by:

Stephen Love – UI Consumer Horticulture Specialist, Aberdeen, ID

John Lloyd – UI Arboriculturist, Moscow, ID

Wayne Jones – UI County Educator, Idaho Falls, ID

Introduction

Idaho citizens and city leaders are seeking ways to improve their communities. Development of green areas is an obvious and preferred strategy to increase quality of life. One of the best forms of green areas is an arboretum due to its educational value which extends beyond recreation and leisure. This project was designed to study the feasibility of developing and maintaining an arboretum program in Idaho.

Several states support some form of arboretum and/or botanical garden programs. One of the oldest and most successful is sponsored by the University of Nebraska in the form of their Nebraska Statewide Arboretum (NSA). This organization was chosen for study because of their long history, documented success, structure, and activities that involve and benefit numerous communities.

On July 10-12, 2006 the staff of the Nebraska Statewide Arboretum (NSA) graciously hosted three faculty members of the University of Idaho and provided insights into organization and operations. This report provides a post-trip summary of discovery and conclusions by the three faculty members.

History of the NSA

The program is slightly over 30 years old. It emerged when a group of private citizens from a small community in central Nebraska approached the University with the statewide arboretum concept. The idea was adopted, the new organization placed under the office of the chancellor, and a portion of one faculty FTE dedicated to the organization. Since that time, the organization has expanded to include a director and 7 full-time staff. Currently, 78 communities and institutions have established arboreta under the umbrella of the NSA.

Structure of the Statewide Organization

The Nebraska Statewide Arboretum is administered from the office of the chancellor at the University of Nebraska-Lincoln. One vice-chancellor is given responsibility to oversee the program. Jim Locklear is the current director of the arboretum and the seven staff members are supervised independently by Jim. Salaries for the staff are paid by the University of Nebraska. However, funds for salaries come from a combination of public and private funds. The director is paid entirely by the university and the source of staff salaries ranges from 85% to 0% university funding.

Beyond the director, the arboretum staff is divided into three categories, those that provide community services (3), those that operate the horticultural programs (2), and those that provide communication and clerical support (2). Community service includes duties associated with providing education and support for communities desiring to establish or maintain an arboretum site. Horticultural programs include applied research and production activities designed to make a wide variety of plant materials available to communities and organizations associated with arboretums.

The Statewide Arboretum programs are monitored and directed by an Executive Board, consisting of a president, vice president, secretary, treasurer, and six at-large members. The board meets once each year to review programs and operations and make suggestions for program direction and improvement.

Membership in the Statewide Arboretum takes several forms. Foremost are affiliations associated with arboretum sites around the states. There are three categories of affiliation, including Affiliate Members (those under contract to maintain an arboretum), Accredited Members (includes sites with established arboreta that are bound to a high level of public visibility and educational opportunities), and Historical Site Members (those incorporating an element of non-plant historical interest into their arboretum site). Affiliate sites pay an annual membership of \$120. Accredited and historical members pay \$200.

The Statewide Arboretum also seeks individual and corporate memberships that are not directly associated with an arboretum site. Categories and fees include Individual Member (\$35), Family (\$40), Patron (\$100), Group Associate (\$100), Sponsor (\$250), Sustainer (\$500), and Benefactor (\$1,000).

Funding

Total operating budget for the Nebraska Statewide Arboretum is approximately \$500,000 per year. About half of this total is directed at salaries, a portion for travel, publications, and mailings, with the remainder (approximately \$200,000) utilized for grants to organizations or affiliates proposing to design or maintain an arboretum site.

The University of Nebraska provides a portion of the funds for salaries, plus office, greenhouse (minimal space fee), and field space for operations. Facilities provided by the university are not included in the funding summary. Approximately half of the operating budget is provided by the university.

The remainder of the funds for operations are maintained and provided by a private foundation maintained specifically for the benefit of the Statewide Arboretum. Funds coming into the foundation include membership dues, donations from individuals and businesses, profits from plant sales, and fees for project consultation services.

Some of the funds that come into the organization are specifically dedicated to grant programs and must finally end up in the hands of community organizations for public

projects. These funds come from various federal and state sources, with the most prominent being the Nebraska State Forest Service. Other significant sources include the Nebraska State Lottery and the Roads and Highways Department.

Services Provided to Members

In order to remain viable, the Statewide Arboretum must provide services and materials that are attractive to their membership. The Nebraska staff has been creative in meeting this requirement. This is an important part of their historical success.

Jim Locklear indicated that the single most important service provided is money for community projects in the form of grants. This creates interest from the public and gives the organization a direct tie-in with community leaders and other service organizations. Grants to communities and institutions for arboreta-related activities vary in value from a few thousand up to \$40,000. Funds are allocated for any project associated with establishing or maintaining a public site involving plants and plant education.

Individual and corporate members receive a number of other standard benefits. These include:

- 1) Three issues of *Leafings*, the Statewide Arboretum publication that reviews arboretum activities and highlights community improvement projects.
- 2) Three issues of other arboretum publications, including *GreatPlants*, and *The Seed*, both of which provide information on unusual plants and planting ideas.
- 3) Discounts on gardening and historical books
- 4) Discounts on plants at annual plant sales
- 5) Offerings and information on new and unusual plants
- 6) Information on special events and tours
- 7) Free admission to all garden and botanical sites in Nebraska as well as many associate gardens in other states.

In addition to these benefits, the affiliate and accredited members (those maintaining actual arboretum sites) receive a number of additional benefits that are detailed in signed Memorandum of Understanding. These include:

- 1) A frameable certificate of affiliation.
- 2) Opportunity to use the official NSA logo and to buy official arboretum signs and labels
- 3) Free consultation and assistance by the NSA staff in establishing an arboretum.
- 4) Free annual visit by the NSA staff.
- 5) A 20% discount on consultation services beyond those provided for free.
- 6) Training in arboretum care at an annual conference.
- 7) Access to new plant materials (includes 15% discount on purchases).
- 8) Ability to manage local funds under the NSA 501(c)(3) designation.

In return for services accepted, affiliate members are obligated to complete the following:

- 1) Pay annual dues.
- 2) Demonstrate appropriate maintenance on the arboretum site and collection.

- 3) Maintain public information and education programs.
- 4) Submit an annual collection map and summary.
- 5) Have an assigned curator.
- 6) Submit the site and master plan for review every three years.

It is important to note that communities are solely responsible for maintenance of their arboretum sites.

Description of Community Programs

The NSA community programs have become an important part of University of Nebraska community development efforts. It is also the most important element of the NSA mission. The intent is to offer assistance to communities in developing attractive, functional, and educational community space. Specifically, the community programs, facilitated by three NSA staff members, provide the following services:

- 1) Grant dollars for community arboretum projects.
- 2) Consultation and assistance for arboretum planning, design, and installation.
- 3) Assistance with identification and accumulation of collection materials.
- 4) Assistance with design of educational materials.
- 5) Continuing education for curators and NSA members.
- 6) Assistance with arboretum-associated community events.

The NSA currently serves communities ranging in population from 300 to 700,000.

Horticulture Programs

The objective of the horticulture programs of the NSA is to provide plant materials and information that will help expand community collections and improve arboretum care. Specific activities include:

- 1) Collect and evaluate native and adapted plant materials for use at arboretum sites.
- 2) Develop propagation protocols for new plant materials.
- 3) Produce and distribute new and unique plant species.

NSA horticultural programs benefit all interested citizens of Nebraska, but preference for information distribution and plant availability is given to NSA members.

The main function of the horticultural program is to provide new, rare, and/or unique plant materials available to affiliate members improve selection in the process of curating new or existing collections.

Conclusions and Recommendations

After careful assessment of the Nebraska Statewide Arboretum program, it is the opinion of the review team that the University of Idaho has the expertise and resources to help establish a similar, but smaller program. It will require some investment of faculty and staff FTE on the part of the PSES Department and the College of Agriculture, but should not require significant outlay of new capital.

To successfully found the program, adjustments will be needed in faculty appointments and assignments, namely:

- 1) The UI arborist will need to be reassigned to direct the program. This will require a shift from research to a significant extension (possibly 50%) appointment.
- 2) Shift in job description of one consumer horticulture specialist to include duties as an assistant director for horticulture programs.
- 3) A partial shift in appointment for one of the existing on-campus PSES clerical staff to provide support for the arboretum director.

Advancement of the horticultural programs will also require some dedication of resources by CNR, specifically some time from the new propagation scientist and propagation greenhouse facilities. This can be explored over the next year.

Essential to the success of an arboretum program will be industry and community support. A healthy membership roster is needed to establish a stable funding base. Also, willingness to participate in arboretum development on the part of community leaders will be necessary to establish participating sites.

A suggested name for the organization is Arboreta of Idaho

Short Term Goals (1-2 years)

If a decision is made to move forward with a statewide arboretum project, several things must be completed, including a decision to commit UI resources, appointment of a board of directors, development of operational guidelines, and recruitment of industry and community partners. Specific goals for creating an arboretum organization are listed below:

- 1) Obtain university commitment to the program, reassign key personnel.
- 2) Develop and publish organizational mission and procedure guidelines.
- 3) Establish an organization with a board of directors and incorporated status.
- 4) Identify and contact institutional and corporate partners, establish a private foundation and begin the process of accumulating funds for grant programming.
- 5) Develop membership strategies.

Long Term Goals (3-10 years)

Once operational, the arboretum and begin to function and pursue longer-term goals. Based on the model provided by the Nebraska program, such objectives may include:

- 1) Identify and initiate 3 to 10 pioneer community arboretum projects.
- 2) Involve existing Idaho arboreta and botanical gardens in the statewide organization.
- 3) Identify permanent partners and raise \$100,000 annually for community grants.
- 4) Design and manufacture logos, signs, labels, etc.
- 5) Develop serial publications for distribution to members.

Report – Investigation of Plant Material Marketing Systems

Prepared by:

Stephen Love – UI Consumer Horticulture Specialist, Aberdeen, ID

Introduction

Changes in demographics and perception are creating markets in Idaho for non-traditional landscape materials, especially native and low maintenance plants. The University of Idaho, among others, has initiated a research program to develop new varieties of native and adapted plants. In order for this research activity to benefit the Idaho nursery industry, a structured system for evaluation, propagation, and introduction of new plant varieties must be in place.

Surrounding states, including Utah, Colorado, and Nebraska have established programs to assist with the introduction of new plant materials. The Nebraska program is called “GreatPlants”, the Colorado program “Plant Select”, and Utah “Utah’s Choice”. Each of these programs is unique with respect to operation and philosophy and all provide examples of how plant introduction systems can be structured. The objective of this project, funded by an Idaho Nursery & Florist Research/Education grant, was to explore each existing program and develop recommendations for establishing an Idaho plant introduction system.

Sufficient funds were requested to cover costs for one individual to travel to Utah, Colorado, and Nebraska to interview the staff of each existing program. An interview with the GreatPlants staff was conducted in conjunction with the visit to the Nebraska Statewide Arboretum headquarters. The “Utah’s Choice” staff was interviewed in November at the Utah Botanical Center. At that point, it was deemed unnecessary to make a special trip to visit with the Colorado contingent because a previous visit to Colorado plus extensive knowledge of “Plant Select” passed on by the Utah staff provided the information needed to assess the program.

Findings

Specific information concerning organizational structure, operational procedures, and funding strategies were collected for each plant introduction organization. See Table 1 for a summary of characteristics. Each system element was evaluated for efficacy and applicability to the Idaho situation. Finally, recommendations for developing an Idaho plant introduction system were put forth.

Types of plant materials introduced: Each of the three existing organizations adopted different philosophies with respect to the type of plant materials preferred for evaluation and introduction. GreatPlants emphasizes natives of the great plains, but does not draw a hard line against plants from other parts of the country or world. Plant Select capitalizes on the expertise and opportunities available for worldwide plant collection offered by the Denver Botanical Garden and takes a no holds barred approach to introduction.

Table 1. Organizational features and operational procedures for the “GreatPlants”, “Plant Select”, and “Utah’s Choice” plant marketing programs.

<u>Characteristic</u>	<u>GreatPlants</u>	<u>Plant Select</u>	<u>Utah’s Choice</u>
Types of materials introduced	Native plants from the great plains and select adapted plants from around the world	Adapted plants from around the world	Plants native to Utah and occasionally other intermountain states
Procedure for identifying potentially valuable plants	Decisions of a committee made up of Nebraska Statewide Arboretum staff and members of the Nebraska Nursery and Landscape Association	Denver Botanical Garden staff provides information on new plants. Decisions on pursuing new materials made by a committee of Plant Select members	Decisions made by Utah’s Choice staff using advice from an informal group of native plant nurserymen
Methods for evaluation of new plant materials	University of Nebraska trials (1 site) plus a volunteer Garden Network made up of mostly individuals	Informal network of heritage gardens, both public and private	Informal network of demonstration gardens, mostly planted by community organizations
Methods for propagation and introduction to the nursery trade	University of Nebraska provides propagation (plants and seed) to individuals and cooperating nurseries	Initial seed provided by Plant Select. Propagation and introduction completed through designated member companies	Seed collected and propagated by the Utah Botanic Center then sold to member nurseries
Mechanisms for promotion and advertising of new plants	Publishes descriptions distributed through the Nebraska Statewide Arboretum “Plants of the Year” newsletter	Maintains and publishes (in popular media) a Plant Select List of recommended plant varieties	Maintains a and publishes (not widely) a Utah’s Choice plant list
Options for legal variety protection and limitation of distribution	No legal protection. Preference for distribution given to members	Use of legal protection (plant patents, etc.) and licensing arrangements	No legal protection. Limited label system in place for control of distribution
Structure of membership	Tied to membership in the Statewide Arboretum. Members added to an approved supplier list	Registered membership accompanied by supplier listing, access to plants, and use of labels and advertising materials	Registered membership accompanied by permission to purchase labeling materials
Potential for allocating funds for new variety research	Funds from university plant sales returned to arboretum staff for additional research	None	None

The Utah's Choice group is the most conservative of the three, choosing to limit plant selections to those native to Utah or to adjoining intermountain states. Each philosophy has positive and negative aspects. Restricting selection to locally native plants provides unique identity and marketing approaches, but limits the number and quality of materials available for introduction. Plant Select has been the most successful of the three groups in marketing "impact" plants. However, there is also a developing need to identify and market Idaho natives. Consequently, an approach similar to that taken by Nebraska's GreatPlants may be the best for an Idaho program.

Procedures for identifying material: All three programs have developed some type of committee structure for making decisions about which new plants should be pursued for evaluation and introduction. Plant Select has the most formal decision-making body in the form of a committee made up of both industry and institutional members. Utah's Choice has the least formal group made up of an advisory group of native plant nurserymen. Each organization stressed the need to involve industry representatives in the decision-making process. The more formal approach, with appointed committee members, appears to be the most successful.

Methods of evaluation: The three organizations have adopted plant evaluation systems that consist mostly of volunteer demonstration and/or heritage gardens. In most cases, these gardens are planted and maintained by communities, extension personnel, schools, university research farms, and interested individuals. The GreatPlants group also maintains one formal testing site at the University of Nebraska. The demonstration garden system suffers from lack of longevity and sporadic maintenance, but may be a necessary element of an Idaho system due to the cost of formal testing. However, it is recommended that the University of Idaho maintain two to three formal plant testing and selection sites.

Methods for propagation and introduction: In the case of each existing organization, public institutions (universities and botanical centers) played key roles in maintaining and distributing initial propagation stocks. The process of transferring propagation responsibilities to industry differed in each case. GreatPlants produces and sells plants to the public, while at the same time providing seed and propagation material to nurserymen. Public sales continue until the industry meet begins to meet demand. Plant Select encourages large-scale industry involvement from early on and tries to limit institutional involvement to the role providing initial propagation material at the time of introduction. For Utah's Choice, the public institutions play a more critical role, serving as the sole and constant source of seed and propagation materials for most of their advertised plants. The most successful examples of plant distribution appear to require early and aggressive industry involvement. For this reason, it makes sense to set up the Idaho system such that new plant materials are transferred into private hands as quickly, and with as much opportunity for profit, as can be arranged.

Mechanisms for advertising and promotion: All three organizations have adopted cooperative public/private promotional arrangements. In each case, public institutions maintain and distribute plant availability lists and use university extension personnel to

provide education materials and information about new introductions. Each organization produces promotional materials for use by the industry in the form of pot labels, flyers, and posters. Plant Select has the most aggressive marketing program, Utah's Choice the least. Nurserymen use the promotional materials to develop identity and customer loyalty. Based on the existing examples, it appears essential to the success of an Idaho program to develop joint private/public promotional programs. The nature of promotion will be dictated by funding availability, but must be highly visible to the public. Consideration should be given to establishing membership structure and fees that will result in effective advertising and promotion.

Options for legal protection: Both plant patents and plant variety protection (PVP) are available to protect investment in new plant varieties. These allow control of distribution and recovery of royalties. However, the applications for such protection are very expensive and often result in legal challenges and industry discontent. Plant Select has chosen this approach and is dealing with all of the associated problems. GreatPlants and Utah's Choice have decided not to pursue legal protection of new introductions. Both give preference to members for initial distribution of propagation material and use label sales to collect fees, but have no other mechanisms for control of distribution. These simple methods are effective only if all nurserymen selling organization products are honest and forthcoming. It also limits the potential for local industry profit that comes from keeping plant materials limited in availability. It is probably not a good idea for an Idaho organization to bear the costs and problems of legal protection, but some serious consideration must be given to adopting some type of controlled introduction process.

Structure of membership: All three organizations recruit and formally register members. GreatPlants membership is tied directly to membership in the Statewide Arboretum and includes company and individual categories. Plant Select and Utah's Choice membership is directed more toward companies involved in producing and selling plants, particularly the nursery industry. Plant Select has a tightly controlled membership structure and registration is required to obtain and sell plants and to use promotional materials. The Utah's Choice organization is attempting to maintain similar restrictions, but does not have good mechanisms in place to enforce membership requirements. However, they do give preference to members with respect to providing propagation materials, as does GreatPlants. An infant Idaho system may also have some difficulty in enforcing membership requirements, but in order to protect the integrity of the organization, some mechanisms to do so should be considered.

Potential for recovery of research funds: GreatPlants uses public plant sales to augment new variety development research. The other two organizations have no research funding mechanism in place, but are struggling to find ways to resolve this problem. New variety development research is essential to the success of plant introduction organization and this should be integrated into the Idaho system. These kinds of funds can be generated in a number of ways, such as dedication of a portion of membership dues, a small royalty on plant sales, or charges for promotional materials.

Recommendations

To remain competitive with national chain suppliers, the Idaho nursery industry must offer consumers unique and desirable products. Given public interest in new and/or non-traditional landscaping practices, one area with opportunity is the introduction of unique native and adapted plants. The University of Idaho has committed significant resources to helping the nursery industry succeed in this effort. For these reasons, it is logical, and possibly imperative that a plant introduction system be organized to help the nursery industry capitalize on these opportunities.

The development of such a system appears to be feasible. The necessary institutional and industry elements are in place. The only thing lacking is a joint team of interested individuals who can determine policy and establish an umbrella organization.

If we choose to move ahead with an Idaho plant introduction organization, I recommend that we consider the following features, based on the successes and problems of similar organizations in neighboring states:

- 1) Plant material considered for introduction not be limited to Idaho natives, although a separate designation and promotion for Idaho natives may be advantageous.
- 2) A joint committee of university, federal, and industry representatives (possibly with input from the Idaho Native Plant Society?) be organized and charged with making recommendation on new plants destined for evaluation and introduction.
- 3) University of Idaho personnel assume the major responsibility for obtaining and evaluating new plant materials. This will be done with industry input and cooperation. Evaluation sites should be a combination of formal trial sites and volunteer demonstration gardens.
- 4) Industry take an early and active role in introduction and distribution of new plants. Consideration should be given to procedures that will provide some control over distribution and create better opportunities for profit among participating Idaho nurserymen.
- 5) Formal legal protection of new plant varieties not be routinely sought. However, other methods for control of distribution should be discussed and implemented.
- 6) Formal membership in the organization should be a prerequisite for handling and selling introduced plants. Benefit from organization sponsored advertising and promotion should also be tied to membership.
- 7) A mechanism should be built into the organizational budget allowing funds to be allocated toward new variety research. The funds should be accessible to either private or public researchers that are pursuing appropriate goals.

Offer from Utah's Choice

In the process of discussing operations for the Utah's Choice program, their representatives asked that I include in this report an offer for Idaho to partner with their organization. The obvious alternative is for Idaho to strike out on its own. It is my opinion that both options have distinct advantages and disadvantages. I will include my view on this invitation and the topic can be put forth to INLA for further discussion.

Advantages to a Utah's Choice Partnership

- 1) The Utah's Choice organization is actually sponsored by the Intermountain Native Plant Grower's Association. Many Idaho nurserymen are already members of this association. Formally tapping into this network may strengthen our position by allowing us to capitalize on available plant collections, use existing promotional materials, and identify jointly beneficial business arrangements.
- 2) It would shorten the period needed to establish a functioning organization. The Utah's Choice personnel are already in place and willing to take us under their wing until we are in a position to contribute to operations. I estimate we could be functional within a year in a partnership, while it may take three to four years if we strike out on our own.
- 3) The Utah's Choice group expressed willingness to help us develop an Idaho identity through the partnership. We could adopt a unique plant variety trademark, such as "Idaho's Choice" (I prefer "Idaho's Plant Gems") while still benefiting from the partnership.

Disadvantages to a Utah's Choice Partnership

- 1) While it appears there is room for flexibility with respect to operational procedures within the partnership, we will still be tied to Utah's Choice decisions and structure. In some cases, their choice of operational philosophy may not be the best for us.
- 2) Utah's Choice has adopted a very narrow emphasis and is determined to limit plant introductions to those native to Utah and neighboring states. We may not choose this limitation. This will need discussion.
- 3) Utah's Choice has a very weak organizational structure for dealing with membership, propagation, and plant distribution issues. We may need to jointly resolve these problems before we can accomplish what is needed for the Idaho industry.
- 4) Utah's Choice has no mechanism for returning dollars back to developmental research. An equitable solution to this problem must be sought during negotiation.

With all of that said, it was my impression that the directors of the Utah's Choice organization are eager for a partnership and the strength it could provide. Consequently, they are willing to work toward resolution on any topic of concern.

For that reason, plus the advantages listed above, I feel it would behoove us to set up a committee of interested INLA members and meet with the Utah's Choice staff and

explore the feasibility of a Utah/Idaho partnership for plant variety development and introduction. I highly recommend that we do so.

Expenditure Report

<u>Category</u>	<u>Amount</u>
Travel to Nebraska (Airfare, lodging, meals for 3)	\$3,150
Travel to Utah (vehicle miles, lodging, meals for 1)	\$ 245
 Total funds allocated by ISDA	 \$4,835
Unused funds	\$1,440

Unused funds resulted from the PIs decision to eliminate a trip to Colorado to meet with the Plant Select staff. The unused funds will be returned to the ISDA for reallocation to other projects.